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MILWAUKEE
BUREAU OF ECONOMY AND EFFICIENCY

BULLETIN NO. 1

PLAN AND METHODS

MILWAUKEE, WIS.
MAY, 1911

MILWAUKEE

BUREAU OF ECONOMY AND EFFICIENCY

John R. Commons, Director
B. M. Rastall, Associate Director

CONSULTING EXPERTS

F. E. Turneaure, Louis E. Reber, H. L. Russell,
S. W. Gilman, Peter White.

BULLETINS ISSUED

Plan and Methods

IN PRESS

Telegraph Alarm Systems

House Drain and Plumbing Inspections

The Refuse Incinerator

Garantishment of Wages—Published by Wisconsin Bureau of Labor

Housing Conditions—Published by Wisconsin Bureau of Labor

Workmen's Accidents—Published by Wis. Committee on Industrial Insurance

Women's Wages—Published by Wisconsin Consumers' League

Free Legal Aid

STUDIES IN PROGRESS

City Administrative Organization

Organization of the Public Works Dept.

Water Works Efficiency

Water Rates

Street Construction

Street Cleaning

Construction and Operation of Sewers

Management of Public Structures

Ash and Garbage Collection

Purchase Methods

Special Assessments

Licenses and Permits

Health and Sanitation

Milk Supply

Sanitary Inspection

Communicable Diseases

Infant Mortality

Meat and Foods

Municipal Reference Library

Municipal Education

Public Recreation and Amusements

**MILWAUKEE
BUREAU OF ECONOMY AND EFFICIENCY**

BULLETIN NO. 1

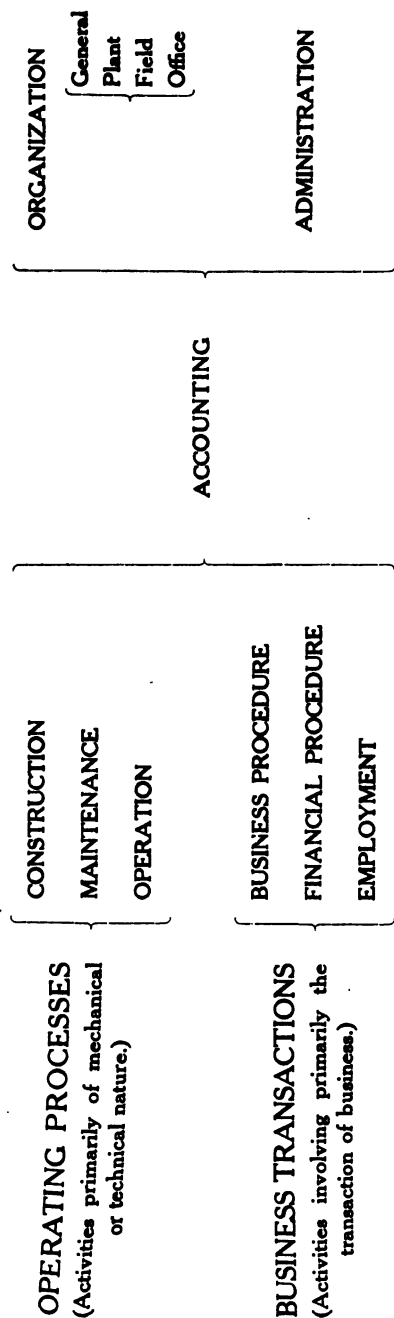
**Plan and Methods in
Municipal Efficiency**

BY

B. M. RASTALL

**MILWAUKEE, WIS.
MAY, 1911**

PLAN OF DEPARTMENT OR INDUSTRY SHOWING THE SECTIONS OF THE EFFICIENCY PROBLEM



EFFICIENCY UNITS
Material Efficiency
 Personal Efficiency
 Efficiency of Processes

Any complete piece of work involves efficiency in each unit and section of the outline.

SCOPE OF THE WORK

The Milwaukee Bureau of Economy and Efficiency is engaged in a municipal survey along the lines of the Pittsburgh Survey and the activities of bureaus of municipal research of other cities, but is of broader scope than either. This survey has two principal sections, the first, a study of the social and economic conditions within the city; the second, a study of the economy and efficiency of municipal departments.

The social survey inquires widely into the conditions of living within the city. Studies are being made of health and sanitary problems, housing conditions, accidents to workmen, standards of living, and kindred subjects, and definite plans will be proposed for the advance of the city to the best social conditions. The survey of business efficiency inquires into the organization, administration, accounting, finance, business practice, construction, and operation work performed by the various departments of the city government, and will work out economical and efficient business systems for these departments.

Beyond its work for the city departments, the bureau seeks to become a part of the general movement for the advance of the city along material and social lines, and co-operates to this end wherever possible with local business, industrial, civic, and social organizations and with state and national organizations of similar character.

THE SOCIAL SURVEY

The social survey is not an exhaustive investigation intended to expose conditions or to furnish material for social philosophy, but a means of measuring the efficiency or discovering the inefficiency of city government. It is based on the principle that the municipal government is a social corporation conducted for the health, welfare, and prosperity of its inhabitants. Consequently, the measure of its efficiency is the extent to which it

makes its resources go in promoting health, welfare, and prosperity. These are its dividends.

The investigation of housing conditions, for example, is simply an investigation of the extent to which the existing laws are enforced. If they are not enforced, the efficiency survey must determine why they are not enforced, and how they can be enforced. The same is true of the investigation of infant mortality, tuberculosis, the milk supply, unemployment, garnishment of wages, newsboys, and so on. The social investigation discovers actual conditions; the efficiency investigation determines means and measures for dealing with them. If the city wastes its resources in one direction by bad organization and poor economy, the effect is seen at some other point in the misfortune, ill health, or economic handicap of its citizens. The social investigation is directed towards discovering these points in order that the efficiency investigation may find remedies for them.

THE EFFICIENCY SURVEY

The city and corporation

The efficiency survey is a thorough study of the work performed by departments for the city, to be followed by a reorganization of procedure along lines of the greatest economy and efficiency. In the conduct of its executive departments the city is simply a business corporation, and efficiency in the work of these departments is to be secured by exactly the same general methods as in private corporations. The bureau is, therefore, following the lines of investigation and reorganization that have been developed in the efficiency work of business experts and efficiency engineers for the most progressive private corporations.

Difficulties of city efficiency

The city department and the private corporation operate, of course, under considerable differences of conditions—differences that render successful efficiency work for the city much more difficult. The city department is governed and limited in its activities by a mass of legal requirements, complex in their nature, frequently confusing, built up from a number of non-coordinated sources, but which the department is compelled to follow implicitly. Transactions are attended by large amounts of ceremony and red tape, a considerable part of which seems unavoidable, at least without

fundamental changes in methods of control. The activities of the various departments differ widely in nature and many of them are of a peculiarly complex kind. The task of their reorganization is comparable to the problem of reorganizing half a dozen manufacturing plants of widely different types at the same time, and of combining them into one perfectly adjusted and cooperating whole. In addition, the business and accounting practice of cities is in a much more backward condition than with private industries. Where efficiency work for a corporation can usually start with good accounting and statistical systems, and with modern methods of operation and business transaction already installed, work for the city must usually begin at the very bottom and construct these accounting and business systems as the first steps of the work. Political conditions invariably produce severe restrictions. These and other handicaps, however, simply make efficiency work for the city more difficult and are not so fundamental as to prevent similar methods from accomplishing equally valuable results.

THE PROBLEMS OF EFFICIENCY WORK

High efficiency in a business or department requires effective operation, proper business procedure, good accounting, thorough organization, and capable administration. The work which the business or department exists primarily to perform is carried out through its operating processes and business transactions. Accounting makes permanent record and statement of these activities and presents their results graphically for information and study. Organization makes plans for the activities, and systematizes them into a coordinate whole. Administration oversees and actively conducts the work under the organization plan.

Operating processes Every industry or department is a plant for the furnishing of either physical products or services. Its operating processes include all activities of a technical or mechanical nature engaged directly in turning out the commodity or service. The paper mill and the health department both have these problems of operation. Efficiency can be attained only when operation is at a high standard. To secure the standard, engineering and other technical skill is involved, and usually problems of construction, maintenance, and

operation must be solved. Changes so simple as the re-locating of the machines in a repair shop and the standardization of mixtures for producing castings have been known to result in 50% increases in production without additional expense.

Business transactions Business procedure includes all activities involving primarily the transaction of business. All general business transactions, financial operations, and problems of employment are included. Efficiency and economy can be secured only where there are utilized the best modern business practices and safe-guards in such things as letting contracts, making appointments, collecting revenues, and handling stores. In purchases, for example, the careful determination of the best material for particular purposes, the active study of markets and products, strategic buying by a trained purchasing agent, and the careful safe-guarding of use by a modern stores system, all go to make considerable savings over the usual careless methods.

Accounting Accounting procedure includes forms, records, accounts, statistics, and reports. A good accounting and statistical system makes permanent record of all activities, and, through an adequate system of reports, offers information in general and in detail of work performed and results accomplished. Moreover, it gives adequate control over procedure and provides a check upon honesty and accuracy. Such a system is the means by which a business or department may study itself and learn of leaks and inefficiencies. It can be made to furnish a large part of the exact information upon which alone betterments in efficiency can be continuously secured. A thorough and adequate accounting system is, therefore, a necessary part of every efficiency system.

Organization Organization furnishes the systematic plan for the conduct of the department or industry. Perfect organization adjusts a department like a good machine, providing for the same smooth, continuous procedure of work, the best adjustment, most complete co-operation, and most economical use of energy. It arranges for definite individual responsibility in such a way that all activities are given adequate attention. It distributes the total work so that adequate tasks are

assigned each individual without over-burdening. It provides a uniform and simple system for the conduct of all affairs that can be reduced to routine, and for a regular progress of work through the department. It secures definiteness, and stepping-up of authority so that department heads may be free for problems of general or special importance. Careful study and hearty cooperation can produce a close approach to this ideal.

Administration Administration concerns active management. Organization is static, its plan is powerless by itself. Administration is dynamic and personal, concerned with the most effective accomplishment of the work in hand. It must initiate and energize and guide. Organization treats the department as though its methods were fixed, and as if work were of definite amount and constant character. Administration adjusts organization to meet the actual conditions of operation with its momentarily changing detail of conditions and amount of work and unexpected problems. Organization seems most completely effective in planning the larger, more constant activities; administration to be most needed in fluctuation and detail. Organization plans procedure, and administration actively carries out the plan under necessities of changing conditions and complexity of detail. The most effective administration can grow only from good organization, personality and training, and high *esprit de corps*.

Efficiency units In each section of efficiency work just outlined there are involved three fundamental efficiency units, namely, those of materials, processes, and personal services. In every piece of work performed there is the problem of quantity, quality, and utilization of materials (the best materials for use and the best use of them); the problem of number and utility of processes (the best methods and best utilization of them); and the problem of quantity and quality of personal services (the best services and best use of them). Materials and processes may be studied among the problems of technical operation. Efficiency of personal service is fundamental for all successful work and must be given special attention. It involves the four elements of honesty of application and purpose, proper incentive, good conditions of both

work and worker, and adequate skill and training. These must be secured for the best efficiency in any piece of work performed.

The efficiency plan Every complete piece of work, no matter how small, involves all the sections of the efficiency outline—some phases of operation, business transaction, accounting, organization and administration. Departmental efficiency can be the product only of efficient details of procedure and of effective conduct in all the various sections of its work. Bad conditions in any single section may make a high standard of accomplishment absolutely impossible. A complete efficiency plan must concern itself, therefore, with endless detail, and with every phase of work performed, while moving steadily toward a definite general plan for the undertaking as a whole.

The regular and advisory staff of the Bureau of Economy and Efficiency is so organized as to include experts in engineering, accounting, law, business organization, labor organization, and municipal administration. The outline of methods and description of working papers which follow will indicate the completeness of detailed study and the general plan of the work as adjusted to the peculiarities of municipal affairs.

PLAN AND METHODS OF THE MILWAUKEE BUREAU

Preliminary surveys In order that an efficiency study may proceed most directly and intelligently it is necessary at the start to conduct certain general and rapid studies or preliminary surveys. A knowledge of the problems of the city as a whole, and the information necessary to intelligently conduct and properly coordinate the latter detailed study and development are thus obtained.

The intensive study proceeds in three steps. Complete information is secured as to the work undertaken and the general methods and details of procedure. With this complete knowledge, work and methods are critically analyzed and betterments worked out in detail and tested in actual operation. From the detail, the systematic efficiency plan is built up and installed. Some of the detailed studies can be made for an entire under-

taking, but most of them can best be pursued by departments or department subdivisions.

In the work of the bureau it seemed desirable to combine the preliminary surveys with such detailed surveys as could be made for the city as a whole. This method was accordingly followed. Five preliminary and general surveys were conducted, as follows:

1. A legal survey.
2. An organization survey.
3. A survey of business procedure.
4. An engineering survey.
5. A survey of accounting practice.

**The
legal
digest**

The city in all its activities must follow a complexity of legal requirements as set out in the charter, state laws, and city ordinances. The charter of the City of Milwaukee is itself simply a collection of laws passed during a considerable period of time. At the time of the organization of the bureau there was no collection of legal material that would give accessible information as to the legal duties and responsibilities of the city officer, or of the legal requirements in any line of city activity; and to determine the facts for any particular question necessitated a long and difficult search among volumes of laws and ordinances. Such a compilation or digest of the law seemed a necessity for the work of the bureau and the city departments as well, and one of the first pieces of work undertaken was the preparation of a digest of laws and ordinances which gives this information under convenient indices. The outline for the legal digest and sample pages appear as Appendices Nos. 3 and 4, pages 20-21.

Aside from its main use as a reference work the legal digest will furnish a check upon the following of legal requirements in department activities. It will also indicate where methods can be changed freely and where additional legislation must be secured. Copies will be furnished city departments for such use as can properly be made of them.

The digest cannot be used in deciding technical or mooted legal questions, because of the complexity and confusion of the legal situation. Laws and ordinances are frequently contradic-

tory and in conflict with themselves and each other; legal decisions have frequently given special application or meaning; and frequently only an appeal to the courts can determine definitely what are the legal right and requirements. In all cases where technical legal problems are involved, the bureau will proceed only upon opinion from the office of the City Attorney.

Organization charts and digests The organization survey includes all city officials and employees and shows their relations, their authority, and the duties undertaken by them.

The results have been worked into charts which show relative position and authority, and by brief accompanying digests, the work performed by each man. These charts show with what degree of thoroughness the work of the department is organized. Subjected to careful study they indicate the lines of organization that will give the best attention to the entire work involved, and the most effective distribution of duties and responsibilities. Such charts furnished to the various departments will permit new officials or employees to gain in a few minutes a general knowledge of the work of their department, and of the particular responsibilities resting upon them. Under present methods an officer frequently must spend a year or longer in his office before gaining through the routine of the work a complete knowledge of his responsibilities, and he is thus in danger of failing to give proper attention to important affairs.

The outlines of procedure being followed by the bureau provide for the following utilization of the charts and performance digests:

- a. Comparison with legal digests to determine to what extent department procedure is legally required and to what extent simply built up in business practice.
- b. Studies for inadequate supervision, and indefinite responsibility and authority.
- c. Studies of completeness with which activities of departments are covered, and adjustment of distribution of duties.
- d. Working out new charts and digests for study of proposed reorganization.

e. Copies furnished for assistance of departments—especially of new officials and employees.

A sample chart and sample pages from the digest appear as Appendices Nos. 5 and 6, pages 22-23.

Survey of business procedure Many methods of business procedure are established for the city as a whole. A section of the preliminary survey inquires into the extent to which business procedure is prescribed, and the detail of such procedure. Later, methods will be compared with the best methods of private corporations and suggestions made for improvement. Important sections of business procedure are: budget practice; methods of letting and handling contracts; standards, specifications, and inspection of purchases; methods and control of revenue collections; employment problems, such as methods of making appointments.

Approved city organization centers many of these problems in the office of the city comptroller. Deputy-Comptroller Leslie E. Everts, an experienced accountant, had already undertaken a reorganization of methods in certain lines of business procedure at the time the bureau was organized, and is continuing this work. His work on the city budget has been especially valuable.

Engineering inspection In line with the general policy of securing a broad knowledge and grasp upon the problems involved in the city's work, a preliminary engineering survey was arranged with the consulting engineers of the bureau and a party made up so as to include experts in mechanical, structural, civil, hydraulic, and chemical engineering. The itinerary for the inspection trip of this party is given in Appendix 7, page 24. General suggestions were embodied in an informal report as to the possible coordination of different features of the field and plan operations of the city, and numerous suggestions were made as to concrete studies of probable value. These suggestions are being carried out in the detailed department studies. Arrangements have already been made to have certain of the detailed studies carried on by the engineers who became especially interested in them.

**General
city
accounts**

A very brief inquiry into the accounting systems of the city indicated that a complete preliminary survey would not be required. The general accounts for the city and accounting methods as far as they are uniform and of general application are centered in the office of the comptroller. As the comptroller's office was actively engaged in reorganizing its system, it was agreed that this work should go ahead independently and that adjustments should be made by consultation as necessary. The departmental accounts which constitute the great mass of the accounting work of the city are considered in detail in the intensive department studies.

DEPARTMENTAL SURVEYS

The greater part of the work of the bureau is being devoted to department surveys. The entire city will be covered, the work of each separate department being completed, however, before that of another is undertaken. The work of the department is studied in every detail of operation, business transaction, accounting, organization, and administration. The problems of the department are then analyzed as a whole and betterments suggested whenever they appear possible. For the outline of department surveys see Appendix 8, page 25.

**Department
conference**

The first step in a department survey is a general conference with department officials and employees to put the bureau in thorough touch with the work performed and its principal problems, and to secure suggestions as to the direction in which the department most feels the need for help. The work of the bureau is entirely one of assistance to departments desiring efficiency, and it has been received with cordiality by both officials and employees and given hearty cooperation.

**Preliminary
department
survey**

The second step is a rapid preliminary survey of the department by members of the bureau's staff. This survey is based upon the knowledge gained in the general preliminary surveys, the careful study of which immediately precedes it. Its principal purpose is to give the men who are to make the further investigations a comprehensive knowledge and grasp of the problems of the department in order that they may proceed most intelligently, and with the most

practical benefit to the department as their goal. The results of the survey are put into written form under a uniform skeleton outline (see Appendices 9 and 10, pages 26-27), and subjected to careful analysis for omissions and points for special consideration.

**Detail
surveys**

The preliminary survey is made a guide for the complete detailed study of the department, which is the next step in procedure. Each division of the department, and each plant or section of field work is made the subject of a complete study covering all sections of the efficiency problem (see outline, page 25), and going into the minutest detail, while the department as a whole is studied in the detail of general departmental activities. The result is embodied in a detailed report, written upon the same skeleton outline as the preliminary report, which covers every phase of the entire activities of the department. This report is submitted to the department for verification. Sample pages of a department report appear as Appendix 11, page 28.

**Constructive
study, and
installation**

Upon completion of the detailed reports, the bureau has the complete information necessary for effective study. The material is submitted to an efficiency analysis and criticised from every point of view. Special studies are made of points of particular importance and special reports worked out for particular phases of the departmental work. These will include studies such as a report on methods of accounting with proposals for a complete system; a report on financial transactions, with special reference to revenues collectible by the department; completeness of collections and proper accounting for them; and a special engineering report on the mechanical efficiency of operation. The outline for the study of a special problem of this kind is given in Appendix 12, page 29.

The suggestions of the bureau for betterments are collected and coordinated with present department practice into a definite system and subjected to final criticism by the advisory experts of the bureau. The plans are then laid before the department and discussed fully. Finally, the system is installed

by the department with the assistance and supervision of the bureau.

The cost unit system An important part of the work in every department is the installation of cost accounts.

These accounts do not represent a complete or separate accounting system. Rough results can in fact always be determined where reasonably good accounting methods are in operation. The cost system adds a series of simple records to those already existing, primarily to determine accurate costs, but the records fit themselves so closely into the activities of the industry that every detail of operation may be studied in its true relation, and thus, through the knowledge so obtained, the highest grade of efficiency is made possible.

The cost system gives complete information as to the cost of performing a certain piece of work or furnishing a certain service. For example, it determines the cost of laying a square yard of street paving of a certain type or of furnishing 1,000 gallons of water to the consumer. This is, however, only the beginning of its usefulness. The cost results embodied in suitable reports give a constant check upon performance, and, through them, the benefits of efficiency organization can be given permanent effect.

Its utilization A comparison of results year after year will show clearly whether the department is advancing or retrograding in efficiency, and will thus furnish the greatest possible spur to progressive methods. If extensive dishonesty or inefficiency creeps in, at no matter how obscure a point, the final cost figure is bound to show it. Moreover, the cost records permit so detailed a study of operations that it is possible to go back and discover exactly where the leak occurred, or exactly where the result was achieved that bettered efficiency, and the censure or credit can be given exactly where deserved. Results under municipal operation can be compared directly with the results of similar undertakings under private ownership, and the desirability of the municipal work judged directly. The cost system becomes the basis for trying experiments, new methods, and adjustments in organization, and of determining

by close test whether these changes are desirable. In addition, it permits a direct comparison of one city with another in each of the departments. Where some city shows unusual efficiency, other cities will naturally send experts to determine exactly how the result was achieved, and will adopt the same effective methods.

CO-OPERATION OF EXPERTS AND OTHER BUREAUS

The ultimate value of the work of the bureau is greatly increased because a number of the most important cities in the country are undertaking or considering work of a similar nature at the same time. New York, Chicago, Boston, Philadelphia, San Francisco, New Orleans, Cincinnati, St. Paul, Seattle, St. Louis, and a number of smaller cities are included in the list. The President's inquiry into efficiency and economy, under the direction of Mr. Frederick A. Cleveland, is for the purpose of making an investigation of accounting and finance for the federal government, and several states are considering similar work. Arrangements have been made for cooperation among the various bureaus, with interchange of information and working papers. A fund of \$30,000 has been contributed by former Comptroller Metz of New York City for furthering the development of uniform methods of accounting among cities. The National Municipal League has appointed an important committee to advance the work of municipal cost accounting. All these movements grow from a general study and demand for business efficiency in public affairs.

In Milwaukee the work has the considerable added advantage of the active cooperation of experts in the state departments and the State University. The bureau has thus upon its staff of advisory experts, men of national reputation in all the principal lines of engineering, law, accounting and business administration, and nearly all these men are also making special studies for sections of the work. The experts in organization and accounting of the Chicago Bureau of Public Efficiency are giving active advice and assistance.

The work of the bureau is therefore neither narrow in scope nor local in character; it is as broad as the field of efficiency

study and is a part of a state and national movement for municipal progress.

APPENDICES

The following appendices give detailed illustrations of the work and methods of the bureau. They consist of samples of outlines of procedure, instructions to staff, and sections of reports and working papers.

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APPENDIX NO. I

RESOLUTION AUTHORIZING WORK OF BUREAU.

From the Committee on Finance, presented a report countersigned by the Comptroller, in favor of adopting the following resolution, viz:

Resolved, That the Committee on Finance of the Common Council be and is hereby directed to investigate the system of accounts of all departments of the City of Milwaukee and the operations and activities of all departments and powers granted to the City of Milwaukee, which committee shall submit to the said Common Council for adoption, a complete system of uniform accounts, vouchers and other forms that may be necessary or convenient for carrying out such system and recommendations for rendering more efficient and economical the administration of the city.

Resolved, further, That such system shall be centralized in the office of the City Comptroller and shall show in detail, according to appropriate standard units of product or service, the cost per unit, based on standardized equipment, stores, contracts and specifications, and so adjusted as to permit of publication monthly in the form of bulletins or otherwise.

Resolved, further, That in pursuance of this investigation, the said Committee on Finance is authorized to employ experts, clerical and other assistants, who shall be exempt from the application of the civil service rules or ordinances, and to fix their compensation, and to arrange for the payment of their necessary expenses, whether incurred in Milwaukee or elsewhere.

Resolved, further, That the sum of five thousand dollars be and is hereby set aside from the contingent fund to carry out the intent and purpose of this resolution.

Countersigned June 14, 1910.

C. P. DIETZ, Comptroller.

APPENDIX NO. 2
OUTLINE OF PROCEDURE
GENERAL PRELIMINARY SURVEY

LEGAL—

1. Digest of legal requirements established by city charter, ordinances and related statutes.
2. Submitted to city attorney and departments for verification.
3. Copies furnished as basis for regulating procedure and governing proposals for reorganization.

ORGANIZATION—

1. Organization of each department charted, with digests of duties performed.
2. Submitted to department officials for verification.
3. Used as guide in department surveys.

BUSINESS PRACTICE—

1. Preliminary survey as basis for later detailed work.

ACCOUNTING—

1. Study of general accounting system employed.
2. Examinations of statistics and reports.

ENGINEERING—

1. General trip of inspection by engineering party.
2. Suggestions for coordinating mechanical and other engineering work and for detailed surveys.

FINAL UTILIZATION

LEGAL DIGEST—

1. Determination of how far reorganization can proceed freely, and where legislation must be secured.
2. Check upon following of legal requirements in department activities.
3. Each department furnished proper section for department use.
4. Complete copy furnished city attorney, and kept up to date by necessary additions and changes as new laws and ordinances passed.

5. Conferences with officials and departments as to desirable changes.

ORGANIZATION CHARTS AND DIGESTS—

1. Comparison with legal digests to determine to what extent department procedure is legally required and to what extent simply built up in business practice.
2. Studies for inadequate supervision, and indefinite responsibility and authority.
3. Studies of completeness with which activities of departments are covered, and adjustment of distribution of duties.
4. Working out new charts and digests for study of proposed organization.
5. Copies furnished for assistance of departments—especially of new officials and employees.

ACCOUNTING AND BUSINESS PRACTICE—

1. Comparison with methods of private corporations.
2. Completed and utilized in detailed department studies.
3. Used in cooperation with work of comptroller's office in general accounts of the city.

ENGINEERING—

1. Detailed surveys as suggested.
- March 1, 1911.
-

APPENDIX NO. 3
LEGAL DIGEST
GENERAL OUTLINE

A. GENERAL GOVERNMENTAL

- I. Provisions applicable generally to all city officers.
- II. Mayor
- III. City attorney
- IV. City clerk
- V. City service commission

B. FINANCE AND ACCOUNTING

- I. Comptroller
- II. City treasurer
- III. Water registrar
- IV. Tax commissioner
- V. Board of Review
- VI. Commissioners of Public Debt
- VII. Board of Estimate
- VIII. Board of Trustees of Firemen's Pension Fund
- IX. Board of Trustees of Policemen's Pension Fund.
- X. Trustees of Public School Teachers' Annuity and Retirement Fund

C. PUBLIC WORKS

- I. Commissioner of Public Works
- II. Public Lighting Commission
- III. Commission on City Plan

D. PROTECTION

- I. Chief of Police.
 - II. Chief Engineer of Fire Department
 - III. Commissioner of Health
 - IV. Chief Inspector of Buildings
 - V. Sealers of Weights and Measures
 - VI. Measurers of Wood and Weighers of Hay
 - VII. Board of Fire and Police Commissioners
 - VIII. Board of Trustees of Emergency Hospital
 - IX. Board for the Suppression of Smoke
-

APPENDIX NO. 4

LEGAL DIGEST

IV. BOARD OF PARK COMMISSIONERS
JANUARY 1, 1911

ORGANIZATION—

Five freeholders of city. (Chap. 6a, Sec. 10, p. 126.)

APPOINTMENT—

By mayor. (Chap. 6a, Sec. 10, p. 126.)

SALARY—

None. (Chap. 6a, Sec. 10, p. 126.)

POWERS AND DUTIES:

FINANCIAL. Shall pay all moneys recived for parks or boulevards to city treasurer. Shall not expend a greater sum than the annual levy. (Chap. 6a, Sec. 7, p. 129.)

May, when authorized by council, purchase land for cash or on credit as required by lease with option to purchase, either in addition to or in place of lands to be purchased under Ch. 488, 1889, for park purposes. (Chap. 6a, Secs. 11 and 13, p. 126.)

May contract for purchase of lands for park purposes or lease with privilege of purchase, but no such lease or purchase shall be made until ordered by council, which shall specify terms of purchase or lease. May make purchase on credit and a lien may be created thereon for purchase price, without creating any corporate liabilities. If by installments, shall not extend more than twenty years from date of purchase, at an interest not exceeding seven percent. (Chap. 6a, Sec. 8, p. 130.)

May take and acquire by purchase or by lease with privilege of purchase, lands for the purpose of establishing parks in addition to lands provided for by bonds. May sell land now held for park purposes, provided the proceeds be used to buy other park lands. May exchange present park property for other park property. (Chap. 6a, Sec. 11a, p. 23, Supp.)

Shall annually use one-tenth of a mill of the special tax levied and collected for park and boulevard purposes on each dollar or taxable property. * * *

APPENDIX NO. 5



APPENDIX NO. 6
SCHOOL DEPARTMENT
DEPARTMENT OF BUSINESS ADMINISTRATION AND BUILDINGS
DIGEST OF DUTIES

SECRETARY AND BUSINESS MANAGER. The secretary is the business agent of the board. In addition to the usual business of keeping all records of board and committee meetings, and the accounts of the board, the secretary makes all purchases and lets all contracts except those let directly by the board. He is custodian of all school property and supervises the construction and repair of school buildings. As business agent he supervises the drawing up of specifications for purchases and construction, validates all purchase orders with his signature, signs all contracts, payrolls, and documents of the department, and keeps the books showing summary of the expenditures of the department.

STENOGRAPHER. The stenographer has charge of the correspondence of the business department, the transcribing of records, typewriting, and lists the department bills.

CHIEF CLERK. The chief clerk has general charge of accounts and is manager of the business office. He makes up the payroll for the finance committee, using the records of the Annual Record book, in which teachers are listed by schools, and the card system, in which teachers are listed alphabetically, as bases. He deposits with the city treasurer all money received.

SECOND CLERK. This clerk lists purchases of supplies, indicating the funds charged and the classes of goods purchased. He also keeps a summary ledger in which the distribution by buildings is shown. The totals of these accounts are listed in the general account books. He also writes the money orders and checks for salaries.

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APPENDIX NO. 7

ITINERARY FOR INSPECTION TRIP OF CONSULTING ENGINEERS,
FEBRUARY 13 AND 14, 1911

MONDAY MORNING. The party will be met at the station and brought to the City Hall. The City Hall Power Plant, Meter Repair Shop, and the City Laboratories will be inspected. Plans and reports relating to various features of engineering interest to be visited, will be on exhibit in the Bureau of Economy and Efficiency where they can be inspected by the visitors. Lunch will be served at 12:30.

MONDAY AFTERNOON. The party will leave the city hall and drive via Milwaukee Street to the Third Ward Yard where the asphalt repair plant is located; thence to the Incinerator and back via East Water Street bridge to the pipe yard on the South Side. A visit will be made to the Milwaukee School of Trades, and then to the Jones Island Pumping Station. At Jones Island the site of the Outer Harbor Project will be visited. The party will return to the city hall about 5:00 o'clock.

TUESDAY MORNING. From the city hall drive via Juneau Place and Prospect Avenue to McKinley Park where the party will inspect the Lake Shore Drive and the Milwaukee River Flushing Works. The next visit will be to the North Point Pumping Station; thence to the Milwaukee River Dam and Outlet of the Flushing Tunnel through Reservoir Park to the North Side Natatorium and Playground. From here the party will proceed north to Keefe Avenue for the inspection of a concrete sewer under construction. They will come back to North Avenue and 14th Street to the High Service Station, and after visiting the School Repair Plant at 10th Street near Prairie, and the Auditorium, will return to the city hall.

APPENDIX NO. 8
OUTLINE FOR
PROCEDURE IN DEPARTMENT STUDIES

Based upon general preliminary legal, organization, accounting, business procedure, and engineering surveys.

1. Preliminary conferences with department officials.
 2. Rapid preliminary survey of activities, transactions, and records of departments.
 3. Detailed study and report on (a) operating processes, (b) business transactions, (c) accounting, (d) organization and (e) administration.
 4. Field and plant study of mechanical and technical work performed by department.
 5. Submission of 3 to department for verification. (By director.)
 6. Special report on financial transactions.
 7. Special report on accounting methods.
 8. Special engineering report on operating performance and efficiency.
 9. Submission (to director) of reports on suggestions for reorganization.
 10. Investigation of special problems.
 11. Final report on department activities, with recommendations.
 12. Conferences with department on proposed revision.
 13. Installation under supervision of bureau.
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APPENDIX NO. 9

INSTRUCTIONS FOR DEPARTMENTAL SURVEYS, SEC. 2
PRELIMINARY SURVEY

Study carefully the sections of the legal digest, organization charts and digests, and any other material in the files relating to the department.

Make a rapid preliminary survey of all work performed by the department, or division of the department, keeping constantly in mind the securing of comprehensive information in all questions of operation, business transaction, accounting, organization, and administration.

Check the completeness of returns by a brief inquiry into the work performed by each official or class of employees shown in the budget and payrolls.

The preliminary surveys are made primarily to gain the birds-eye-view and to secure the general grasp of the work of the department necessary to the most intelligent and effective handling of the later detailed surveys.

A complete formal report is not required.

The investigator will write up the results of the study for his own scrutiny, for the criticism of the Bureau, and to become the basis for the analytical outline and introduction to the detailed report in department studies Section No. 3.

The notes should cover: (a) the department or division as a whole; (b) each principal division of the department or section of the division. For both department and division the material should be written under the skeleton efficiency outline, and should be analyzed for omissions, inadequate information, and suggestions for the work of the detailed survey.

The following order of treatment is suggested, but not required where the material seems to group itself more logically in a different arrangement: (a) Organization; (b) Administration; (c) Construction; (d) Maintenance; (e) Operation; (f) Business Procedure; (g) Finance; (h) Employment; (i) Accounting.

APPENDIX NO. 10
DEPARTMENT OF PUBLIC WORKS
PRELIMINARY REPORT ON
DIVISION OF STREET CLEANING AS OF
JANUARY 1, 1191

This division, which is part of the Department of Public Works, is under the direction of Superintendent of Street Cleaning Handley, and has charge of all work connected with the cleaning, sprinkling, and oiling of streets, and of the collection of garbage, ashes, rubbish, and dead animals. The work, except as to collection of garbage and small dead animals, is restricted by political wards, and is done under the supervision of the Superintendents of the wards of whom there is one to each ward. The garbage collection is under the immediate supervision of a Superintendent of Garbage Collections, who districts the city for collection without regard to wards. The collection of small dead animals is made from the whole city by a man especially employed for that purpose, who provides his own horse and wagon.

The superintendents of wards are selected by the Commissioner of Public Works from the city service list.

The ward laborers, except in emergency cases, are selected by the Superintendent of Street Cleaning from the city service list, usually with reference to their residence in the ward. In cases of emergency they are engaged from any available source.

The teamsters are hired by the Superintendent of Street Cleaning from applicants for this work.

All employees, except the Superintendent of Street Cleaning, the Superintendent of Garbage Collections, and his assistants, are hired by the day. One ward yard is provided for each ward in which are kept the tools, wagons, and materials necessary to the work. The ward yard is the office of the Superintendent of the ward, and the employees report there for assignment to their work.

The equipment, such as sprinkling wagons, squeegees, oiling wagons, street sweeping machines, etc., are assigned in numbers as needed for each ward and are kept in repair by the Superintendent of the ward. * * * * *

